INVESTIGATION OF PATTERN RESPONSES IN PERSONALITY

BY

STANLEY CYRIL GRZEDA

A.B., University of Illinois, 1944
M.S., University of Illinois, 1945

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN PSYCHOLOGY
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INVESTIGATION OF PATTERN RESPONSES IN PERSONALITY

Introduction

The term—personality integration—as it is used in the psychological literature is vague. In the literature it appears to be used as: an organizing process, a reducing process, a synonym for the term adjustment, an organized state. Despite this variation in usage, only a very limited number of studies have been conducted in an attempt to clarify the concept. With this apparent disagreement in the statements of integration, this study was designed and carried out to determine whether or not there is a core of agreement among the psychologists in their concept of personality integration, when it is used as a guide in rating combinations of responses to inventory questions. A secondary purpose, was to apply the results of the ratings to determine whether or not it was possible to discriminate between persons commonly considered disintegrated, and persons held to be integrated, i.e. mental hospital patients and community people.

Procedure

It was necessary to obtain responses which could be made in a controlled situation, and which could be paired. An inventory compiled by McQuitty* appeared well suited for this purpose. Pairs of questions were taken from this inventory and included in rating scales devised for this purpose. Since each inventory question solicits one of three responses Y, B, N, there are possible nine combinations of responses which can be made to a pair of questions, as in the following example:

1. Y B N Do you blush easily?
2. Y B N Do you often have headaches?

* This inventory is being used by McQuitty in related studies. (1)

The nine combinations of responses are: Y_1Y_2, Y_1B_2, Y_1N_2, B_1Y_2, B_1B_2, B_1N_2, N_1Y_2, N_1B_2, N_1N_2.

Psychologists** rated these combinations of responses to each pair of questions according to the degree of integration reflected by them. While rating, the raters were guided by their individually held concept of integration. Four rating scales including eighty one pairs of questions were used.

Having obtained the ratings it was necessary to determine the whether or not they reflect a core of agreement. A customary approach to a problem of this nature is to factor analyze the ratings. However, to factor analyze all the ratings is impractical because of the extensive statistical computation involved. Accordingly, only those items were included in factor analysis, upon which there was a high degree of agreement among the raters. The index of agreement used was the average correlation of the raters on the nine possible combinations of responses to a single pair of questions.

Having selected the twenty items on which the raters were in highest agreement (average correlations of .63 and above), the intercorrelations between the different pairs of questions were then computed. Using Thurstone's (2) Centroid method, these intercorrelations were factor analyzed. Analysis was terminated with the abstraction of three factors. These were rotated, maintaining orthogonal axes, until a simple structure was obtained.

Results

The loadings for the rotated factors are given in table 1.

** The term-psychologists-refers to members of the faculty, and graduate students in psychology at the University of Illinois.

Table 1.

	Factor I	Factor II	Factor III
1.	.814	—.229	—.128
2.	.055	.826	.034
3.	.843	—.056	—.037
4.	.865	—.387	.029
5.	.790	—.187	.178
6.	.024	—.863	.047
7.	.283	—.826	.119
8.	.769	—.567	—.040
9.	—.019	.899	.058
10.	—.773	.153	.444
11.	.112	—.846	.147
12.	.240	.752	.292
13.	—.773	—.194	.241
14.	.405	—.762	.131
15.	.918	.036	—.034
16.	.863	—.050	.094
17.	.768	—.256	.014
18.	.734	—.049	—.357
19.	.713	—.198	—.008
20.	.769	.059	.030

The results of the analysis indicate that at least two factors are involved in the ratings. However, further consideration of the items leads to the belief that the emergence of two factors may grow out of the reactions of the psychologists to combinations of responses, irrespective of the content of the questions. This systematic result is to be observed in the items with loadings on factors one and two. It is suggested that but a single factor would emerge if a correction is made for the systematic result obtained.

It is interesting to relate certain results of this investigation to the results obtained by McQuitty (1), through a technique differing widely from the present method. McQuitty using the frequency of occurance of combinations

of responses as a criterion, suggests a psychological basis for differentiating between efficient and inefficient items for measuring his suggested factor of integration. Efficient items, he suggests, are those answerable on the basis of a "subjective" criterion, while inefficient items are answerable on the basis of a more "objective" criterion. This differentiation appears to be in accord with the present results, in that, the items which were included in the analysis, all may be considered as answerable on the basis of the "subjective" criterion.

Inventories that had been administered to groups of graduate students and to mental hospital patients from three state institutions at Elgin, Manteno, and Chicago, were available.*** The mean ranks obtained from the ratings were assigned the response combinations endorsed by the subjects answering the inventory questions. The composite mean scores were computed for the various groups, and the significance of the differences between these determined.

The following groups obtained more integrated scores than the control group when scored on factor I items: dementia praecox mixed, simple, paranoid type, manic-depressive circular and depressed, the paranoid state, and the miscellaneous. Significant differences were obtained between the mean of the control group and the dementia praecox simple, the manic-depressive circular, and the paranoid state.

The dementia praecox hebephrenic, catatonic, undetermined, the manic depressive manic, and the composite hospital group, all obtained scores reflecting lower integration than the mean for the control group. Significant differences were found between the control group and the dementia praecox undetermined and hebephrenic categories.

When scored on the items with high loadings on factor II, the scores for the following groups reflected higher integra-

*** These were made available to the writer through the courtesy of Professor L. L. McQuitty.

tion than the control group: dementia praecox simple, mixed, the manic-depressive circular, and the miscellaneous. Significant differences were obtained between the mean of the control group and the manic-depressive circular.

Groups obtaining scores lower in integration than the control group are: dementia praecox catatonic, hebephrenic, undetermined, paranoid type, manic depressive depressed, and the paranoid state. Significant differences were obtained between the means of the college group and the dementia praecox hebephrenic, undetermined, and the manic depressive depressed.

Certain of the hospital categories obtained mean scores reflecting lower integration than the control on the items with leadings in factors one and two. If the suggestions mentioned earlier (p. 2) were carried out, it is believed that the differences would be greater in the direction of lower integration.

Summary

As a function of the method used in this study, 1. At least two factors are necessary to account for the ratings. However, suggestions were presented which if carried out would probably result in the emergence of a single factor. 2. Discrimination was obtained between the control group and certain diagnostic categories.

BIBLIOGRAPHY

(1) McQuitty, L. L., Diversity of self endorsements as a measure of individual differences in personality. (Submitted for Publication)

(2) Thurstone, L. L., *Multiple Factor Analysis,* U. of Chicago Press, Chicago, Ill., 1947, pp. 147—

VITA

The author, Stanley Cyril Grzeda, was born on March 10, 1914, in Chicago, Illinois. He received his primary and secondary education there. In 1933 he entered Lewis Institute, where taking a limited number of courses he remained until 1937. From 1937 to 1942 he was employed by a concern in the Chicago area in a supervisory capacity. In 1942 he resigned his position and entered the University of Illinois. He received his A. B. in 1944, and his M. S. in 1945. Since 1945 he has had an assistantship in psychology on a part time basis, and has continued in his graduate work.

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